

XXII.—*Notes on South African Accipitres.*

By Lieut. C. G. FINCH-DAVIES, 1st S.A.M.R.

[Continued from p. 438.]

38. *Aquila wahlbergi* (Sund.). Wahlberg's Eagle.

I have not had much opportunity of observing this small Eagle, as I have only met with it within the last few years in the South-West Protectorate, where it does not seem to be very common. I have always found it in the Thornbush country, usually in pairs. The note is a clear plaintive whistle of two notes. I believe the prey to consist almost entirely of small mammals, lizards, snakes, and insects, and I have never known it to attack game-birds. I found two nests, both situated in inaccessible positions in the forks of high Camel-thorn trees. It appears to breed much later than most Eagles, as nests which were certainly occupied were found in December and January, *i. e.*, midsummer, whereas most of the larger birds-of-prey usually breed during the winter months, May and June. I have noticed a curious habit, in the manner in which the female bird approaches the eyrie. After circling round for some time at a great height above it, she would close her wings and drop like a stone till within a few feet of it, when, opening her wings and spreading her tail, she would check her impetus and alight gently on the eggs. Mr. C. H. Taylor, writing of this species in the 'Journal of the South African Ornithologists' Union,' as observed by him in Swaziland, noticed the same habit.

Sclater, following Sharpe, appears to have made a mistake in describing the young plumage of this species. He describes the young bird as having the sides of the head and neck and whole under surface white, with a few remains of bars on the flanks, under tail- and wing-coverts. To what species this description refers I cannot say, possibly to *Hieraëtus ayresi*; the same specimen is apparently figured in the background of plate 77 in the 'Transactions of the Zoological Society,' vol. iv., where the present species is

figured under the name of *Aquila desmursi*. The figure in the foreground of the same plate more nearly represents the normal plumage of the young bird. I have seen several specimens. Two of these, in the Transvaal Museum, have the bases of the quills of the wings still in the sheath. These may be described as similar to the adult but paler; the tips of all the feathers of the upper surface rather paler. It would appear that these pale tips persist for some time as the bird progresses towards maturity, especially on the scapulars and wing-coverts, and I have seen specimens with all the feathers of the nape and back of neck with broad pale, almost whitish edges and tips. What I take to be the fully adult dress is a uniform deep sepia-brown with a purplish gloss. There is a very fine adult female in the Transvaal Museum in this dress shot at a nest in Swaziland.

I have here followed Gurney in placing this species in the genus *Aquila*, though Reichenow and some recent authors have changed it to *Hieraëtus*; but to me it does not seem rightly placed in the latter genus, as although in the possession of a small crest and in size it agrees with some of the species, the form of the bill and the coloration are different. I would suggest that it might best be placed among the Spotted Eagles, *A. clanga*, *pomarina*, *hastata*, etc.

39. *Aquila rapax* (Temm.). Tawny Eagle.

This is a rather common Eagle in the South-West Protectorate, the only part of South Africa in which I have met with it. It has always appeared to me to be a rather sluggish bird, spending much of its time perched on the top of some large thorn-tree from which it can command the surrounding country, and I have rarely seen it soaring. I have never seen it attack any kind of living prey, although no doubt it does kill hares and other small mammals as well as game-birds; etc., and also, when it gets the chance, sickly or wounded small antelopes, as described and figured by Millais in his 'Breath from the Veldt.' It is often a foul feeder, and I have often seen it feeding on carrion, and have caught some in traps

baited with meat and set for jackals. One I shot had its bill and much of its plumage smeared with the grassy contents of the stomach of a buck or sheep.

The plumage is very variable, and scarcely two specimens are alike in this respect. The first plumage is undoubtedly the pale tawny one, which, before it is moulted, often becomes so much affected by bleaching and abrasion as to appear to be a dirty white, similar to the lower figure in Rüppell's plate of *A. albicans*. From this plumage it moults into a deeper tawny-rufous, the scapulars being dark brown with central paler streaks, but the wing-coverts and under surface unmarked with brown. As the bird gets older, dark edges appear to all the feathers of the head and neck, lesser wing-coverts, and sides of the breast. This is the most usual form of adult plumage, and is figured on plate v. of 'The Ibis,' 1865, figure in foreground. From this plumage onward I am inclined to think that the dark brown edges to the feathers gradually increase in width, the median rufous streaks becoming narrower, but I have only seen one South African killed specimen in which this has been carried to an extreme point: it is a mounted female in the Transvaal Museum, in which the dark brown has so far superseded the rufous that this specimen would be described as being dark brown all over, with rufous-tawny streaks on most of the feathers of both the upper and lower surface. I should say, however, that this stage of plumage was quite exceptional, and I have never seen another, nor have I ever read the description of such a specimen from South Africa, although in North Africa I believe such specimens are not so uncommon.

40. *Haliaëtus vocifer* (Daud.). African Sea-Eagle.

I have only met with this beautiful species in eastern Pondoland, where each of the mouths of the larger rivers appeared to have its pair of Sea-Eagles, and where, seated on some dead branch or snag projecting from the water, their snow-white heads and breasts contrasting with the dark green foliage along the banks, they looked very

beautiful. They are very noisy birds, especially when nesting, and I have often listened to their wild clanging cry, which seemed to suit the surroundings. Their flight, although strong, always appears rather heavy, and it seemed to me wonderful that they were so successful in fishing, considering how clumsy their efforts appeared. I have often watched them beating about over the sea, just outside the line of broken water on the bars at the river mouths, then all of a sudden plunging with a heavy splash into the water, usually to appear with a large fish in their talons, which they would bear away to the nearest convenient perch to devour. Sometimes the fish they catch are so heavy that they have the greatest difficulty in carrying them to the nearest bank. The natives often chase them and make them drop the fish they have caught; and I once had to thank one for a fish of about 6 lbs. weight, which came in very handy for breakfast. Like Sea-Eagles the world over, they often rob the Ospreys of their fish, and Livingstone also stated that they robbed the Pelicans on the Zambezi, making them disgorge the fish from their pouches.

I have found two nests—in one case at the top of a very high and quite unclimbable dead tree, the top of which appeared to have been blasted by lightning; the other in one of the forks of a large wild fig-tree, a big mass of sticks containing two white eggs.

The change from juvenile to adult plumage appears to be very gradual, and it no doubt takes some time to attain the fully adult state. The head and neck appear to be the first parts to show signs of the change, these parts and the breast becoming whiter at each succeeding moult; but the broad blackish streaks that are very conspicuous on the breast of the young bird appear to persist even when the rest of the plumage has almost assumed the adult colouring. There are at present several living immature birds in the Pretoria Zoological Gardens that show these breast-streaks in varying degrees of clearness.

41. *Buteo desertorum* (Daud.). Steppe Buzzard.

I have met with this species practically everywhere that I have collected in South Africa, with the exception of the coastal districts of eastern Pondoland. Although supposed only to occur in South Africa during the summer months, I have occasionally seen specimens in the winter, and I believe it sometimes breeds in South Africa. When stationed on the Natal border of eastern Pondoland, near the Ingela mountains, a pair used to frequent the neighbourhood of our camp, and, judging by their behaviour, I am certain that they were breeding, although I never succeeded in finding their nest: this was in June. I have nothing of any interest to record of the habits of this species. It is usually to be seen perched in some conspicuous position, such as a tall tree, fence, or telegraph-pole, on the look out for its prey, which consists for the most part of mice and rats and young birds; it will also take chickens.

Like most of the Buzzard family it is very variable in plumage, not so much in the juvenile, but principally in the adult dress. There appear to be two extreme forms of plumage, with intermediate phases; these may be called the dark brown form and the red form. Among the very large series in the Transvaal Museum there are two interesting specimens, showing these two extreme forms very well. A male from Grahamstown is of an almost uniform deep rufous colour below, slightly mottled here and there with paler colour and with a few streaks of dark brown; the tail bright rufous, with the usual bars. Another, a specimen labelled ♀, but probably ♂, from the Woodbush, Transvaal, is almost uniform deep brown below, mottled very slightly here and there with white and tawny rufous; breast and thighs uniform dark brown; the tail dark grey, tinged with rufous at the edges of the feathers, and barred as usual with black. Some specimens again, perhaps not very old birds, have a good deal of white on the under parts, usually forming a sort of band across the lower breast.

42. *Buteo augur* (Rüpp.). Augur Buzzard.

This is a rare species in South Africa, and, so far as I am aware, has only been recorded from Mashonaland and the South-West Protectorate. In the latter country I met with it for the first time, and only in the mountainous country in the Windhuk district. There I found it not very uncommon, and from what I have observed of its habits, it appears to exactly resemble the Jackal Buzzard (*Buteo jakal*). It is found in the same kind of country, and has just the same flight and cry. I found two nests, both in the same sort of position, *i. e.* built in the forks of small trees standing out from steep mountain-sides, which in shape and composition exactly resembled nests of *B. jakal*. They were composed of sticks, lined with grass, a little sheep's wool, and a few green leaves. One was empty, but as the owners were flying round in a rather excited manner, I expect they were about to lay. The other, found on the 4th of June, 1918, contained two eggs, which were much incubated, of a rather rough chalky texture, subspherical in shape, white in colour, slightly spotted with reddish brown, and with large blotches of the same colour at the blunt end. One I smashed in trying to extract the embryo; the other measures 63.5×53 mm., and is now in the Transvaal Museum.

Claude Grant has discussed the various plumages of this species very fully in 'The Ibis,' 1915, and I have nothing to add to the information given there, except to note that I have never seen a specimen of the uniform black form from South Africa, all I have met with having been white-breasted birds. The young also have the under parts white, streaked on the sides of the breast and flanks, and slightly barred on the latter, with dark brown.

43. *Buteo jakal* (Daud.). Jackal Buzzard.

This is a common bird all over eastern Pondoland and East Griqualand, and scarcely a day would pass in those parts without several having been seen or heard, especially heard, as it is a very noisy bird, particularly in the breeding

season, when its far-reaching, jackal-like cry may be heard everywhere among the kloofs and hillsides. It is a frequenter of somewhat mountainous or broken country, and in Pondoland its favourite haunts are the steep hillsides and cliffs bordering the river valleys. Although the bird is a denizen of rocky places, I have never found a nest actually in a cliff, although I believe it sometimes builds in such places. All the nests I have found have been in the forks of trees projecting from the steep hillsides. It has a very fine and buoyant flight, and is often to be seen soaring at a great height, its clear call coming down from the clouds, where the bird appears like a speck in the sky. When a strong breeze is blowing I have often seen it hunting, poised head to wind, something after the manner of a Kestrel, but without the quick beat of the wings, which are somewhat flexed at the carpal joint and almost motionless, while the eyes are bent on the ground below. After remaining like this for a short time, and seeing no prey, it would sail off down wind a short distance and then bring up again head to wind a little farther off, and so on until a mouse or rat was observed below, on which it would drop and bear off to the nearest perch to eat. I think that, on the whole, this must be a very useful bird, as it preys principally on rats and mice, together with lizards, locusts, etc. It, however, occasionally takes to killing chickens, and on one of my stations, a pair, which had a nest not far away, used to rob me of a young chicken daily, until in self-defence I had to shoot the male bird.

I have nothing much to record with regard to plumage-changes. The young have been often, and correctly, described. Their plumage becomes very pale and worn before the adult state is gained. Traces of immaturity are usually to be seen in a certain amount of rufous mottling on the mantle, when the bird is in otherwise adult plumage. Amongst adult specimens the colouring of the under parts is subject to a good deal of variation: thus some have these parts almost entirely rufous and black, in others there is often a good deal of white, especially on the chest. The

tail-bar also varies a good deal; in some specimens there is almost a perfect bar across all the feathers, in others it is only represented by a dark spot on each feather: perhaps this is a question of age. In fresh plumage there is a beautiful pearly bloom over all the feathers, similar to that seen in many of the Heron family, giving a slate-grey appearance to the plumage, which is really almost black.

44. *Milvus ægyptius* (Gmel.). Egyptian Kite.

A very common bird in eastern Pondoland during the summer months, but in the adjoining districts of East Griqualand it seemed to be rather scarce, and those I saw were only migratory. In the South-West Protectorate, and still more in Ovamboland, I found it exceedingly common, especially in the latter country, where, during a punitive expedition in which I took part, large numbers were always to be seen circling about our camps, or perched on the surrounding trees, and nearly every large tree in the vicinity of a native village contained one or more nests. They were most remarkably bold, often swooping down amongst the men and natives round the cooking-fires, to pick up scraps of meat, etc. In eastern Pondoland I have noticed the bird usually hanging about the villages and native kraals and doing the work of a general scavenger; but in addition to this it takes what living prey it can catch, such as mice, rats, insects of various sorts, while it is also very destructive amongst chickens. After rain, when the winged termites are leaving their nests, I have seen numbers of Kites collect to feed on them, swooping about through the insects with their graceful flight, seizing the termites in their feet and transferring them to their bills.

I have nothing to record as regards plumage-changes.

45. *Milvus migrans* (Bodd.). Black Kite.

The Black Kite is a rare bird in South Africa, and very few specimens have been collected. I have never met with it, and have nothing to record with regard to its habits or plumage-changes.

46. *Elanus cæruleus* (Desf.). Black-shouldered Kite.

I have found this species fairly common in every part of South Africa where I have collected, but, perhaps, scarcer in the South-West Protectorate than elsewhere. Although usually seen singly or in pairs, I once came across a flock of twelve, perhaps collected for purposes of migration of some sort. Each pair seems to have its recognised beat and favourite perches, where they may be found regularly at certain times. Its mode of hunting almost exactly resembles that of the common European Kestrel: hovering on quickly-beating wings at no great height above the ground until it spots its prey, which may be a mouse, grasshopper, or beetle or other insect, it then descends on it with a gentle glide, not a quick dash. It is a fearless little bird, and I believe extremely useful, feeding almost entirely on insects of various sorts, and occasionally on rats and mice. Where they are permitted, a pair will generally take up their residence amongst the trees near a farmhouse, and no doubt prove very useful, while they are certainly very ornamental. Unfortunately, they are sometimes accused of killing chickens, and shot in consequence; personally I have never heard of an authentic case of chicken-killing, but many people seem to have a fixed idea that because a bird is a hawk it must be destructive and therefore to be shot on sight. We have only to observe the attitude of other birds towards this species, to note how little it is feared by them. I have often seen Weavers and other small birds sitting within a few feet of them, even on the same branch, and showing no fear whatever.

I have nothing to record with reference to plumage-changes, except to mention a curious albinistic specimen in the Transvaal Museum. This specimen, an adult male, is almost entirely white, with the following exceptions: three primaries in the left wing are normally coloured, a few grey feathers appear on the scapulars, the crown of the head and upper mandible are pale grey, and there is a grey tinge on the sides of the breast. The soft parts are normal.

47. *Machærhamphus anderssoni* (Gurney). Andersson's
Pern.

I have never met with this rare species, and have nothing to say about habits or plumage. The only South African Museum which possesses specimens is that in Durban, where, as I understand from the Director, there are two specimens, shot near that place. I have not so far been able to examine these specimens.

48. *Pernis apivorus* (Linn.). Honey-Buzzard.

I have not met with the Honey-Buzzard in South Africa, where it appears to be rare. All the South African killed specimens I have heard of have been either young or immature birds.

So much has already been written by Gurney, Dresser, and others on the extremely variable plumage of the young and immature birds of this species, that it is not necessary for me to do more than mention the matter here. I would like to draw attention to a rather curiously coloured specimen shot by Mr. Austin Roberts of the Transvaal Museum, in his garden in Pretoria. In this specimen the whole of the head, neck, and under parts are of a buff colour, each feather with a dark slate streak; there is a dark moustache-mark on each side of the throat. The rest of the upper surface is more or less normal, except that each feather is tipped with buff, and the wing-coverts are parti-coloured, the outer web dark brown, the inner buff-coloured. The tail-bars are somewhat distorted and the forehead is white. A very similar coloured specimen of *P. ptilorhynchus* is figured by Schlegel in his 'Volk Vogels etc.'

49. *Baza verreauxi* (Lafr.). South African Cuckoo-Falcon.

I have found this species not uncommon about the bush and forest country in eastern Pondoland, but owing to its habit of usually being found in rather thick cover, I have not been able to observe much of its habits. Judging by the contents of the stomachs of those I have shot, they

feed almost entirely on insects, and I have never found bird or mammal remains. On one occasion, very early in the morning, in fact just after daybreak, I came across a party of five of these birds, probably the two parents with their young. They were hunting, slowly, over a grassy flat near a patch of forest. Their manner of hunting rather reminded me of that of some of the Kestrels, especially *Erythropus amurensis*. Flying slowly along, head to wind, in more or less of a line, not very high above the ground, they kept on settling on the ground and picking up something. After watching them for some time I succeeded in shooting one, and found its crop to contain a mass of small grasshoppers and a single Mantis. This species has a very strong musky smell, which is apparent in skins for some time. One or two immature birds I have shot have been swarming with lice.

Judging by a number of skins I have examined, this species seems, in some cases at least, to pass through an intermediate stage of plumage between the young and the adult. In the Transvaal Museum there is an immature specimen showing feathers belonging to three distinct plumages. The first and second of these are very similar as regards the colouring of the upper parts. In the first the under parts are white, marked on the throat, breast, and abdomen with dark brown streaks and drop-shaped spots; on the flanks these markings assume a more bar-like shape. In the next plumage the throat and breast are white, marked with broad almost spade-shaped spots of pale rufous brown, the spots being so large that they predominate over the white. The flanks, abdomen, and under tail-coverts are buffy white, with heart-shaped spots of rufous brown outlined with darker brown. From this stage the bird moults into the adult plumage. There is some difference in tint in the colouring of the upper surface in adults; some are of so dark a grey as to be almost black, others much paler. I have seen certain specimens, notably a male from King William's Town, in which the bars on the under surface, instead of being rufous edged with dark

brown as is usual, are almost uniform, the dark brown edges predominating over the rufous.

50. *Poliohierax semitorquatus* (Smith). African Pigmy Falcon.

I have met with very few specimens of the Pigmy Falcon, and know very little from personal observations of its habits. The only part of South Africa where I have met with it is in the South-West Protectorate, where it is far from common. It appears to be a rather tame little bird. One I saw was sitting on a branch of a low thorn-tree close to the road, eating what looked like a large grasshopper, and took little or no notice of me as I rode past within a few yards of it. Neither Sharpe nor Sclater gives any description of the young of this species. These, both male and female, resemble the adults in plumage, but the grey parts are a good deal suffused with rufous owing to the edges of most of these feathers being more or less rufous. The flanks are buffy white with streaks of pale brown or grey; the tips of the feathers of the secondaries, median wing-coverts, and tail are bright rufous.

51. *Dissodectes dickinsoni* (Slater). Dickinson's Kestrel.

I have never met with this species, and have nothing to note with regard to habits or plumages. There appear to be no juvenile specimens in any of the South African museums.

52. *Tinnunculus rupicolus* (Daud.). South African Kestrel.

This is, I should think, the commonest Hawk in South Africa, and is to be found everywhere in suitable localities, that is, wherever rocky hills or cliffs occur. It will also, however, often take up its residence in the steeples of churches or other suitable buildings in towns. In Windhuk, in the South-West Protectorate, a pair used to breed regularly on the Government Buildings, making their nest at the top of one of the large columns. When left in peace it is a tame bird, and often to be seen about farms, where it is most

useful in killing off rats and mice, besides locusts and other harmful insects; but few farmers acknowledge its usefulness, while they accuse it, as they do every other hawk, of destroying their chickens. In my experience it lives almost entirely on small mammals and insects, and I do not remember to have ever seen one kill a bird of any kind, while most small birds appear to have little fear of it. When breeding it is very bold and fearless in the defence of its nest, and will dash out and drive away any large bird that is approaching. In general habits it almost exactly resembles our English Kestrel, but I do not think it hovers so much as that species when hunting, but takes up a position on some telegraph-pole or large rock or tree from which to look out for its prey.

Judging by an examination of numerous specimens, it would appear that the full adult plumage is assumed somewhat gradually, the grey head often shewing a shading of brown in immature specimens, and immature males often shewing traces of bars on the grey tail.

53. *Tinnunculus rupicolus rhodesi*, subsp. nov. Matopo Kestrel.

Similar to *T. rupicolus rupicolus*, but much smaller and paler in colour both above and below, and differing especially in the dark spots on the upper surface being much reduced in size: on the upper mantle they are mere pin-points, while in the male type they are altogether wanting from the smaller lesser wing-coverts.

This race, which I have named after the late Mr. Cecil Rhodes, whose grave lies in the hills which the bird frequents, appears to be very distinct. The type specimens, an adult ♂ and ♀, in the Albany Museum, Grahamstown, are from the Matopo Hills, Rhodesia. I have also examined another adult ♀ from Bulawayo, in the Rhodesian Museum. I have compared these specimens with a large series from other parts of South Africa, and the distinctions I have noted are very noticeable, especially the small measurements and the remarkably small size of the spots. I give

below the wing-measurements of the three specimens mentioned above, and two of the typical race shot by myself in East Griqualand.

Wing-measurements.

<i>T. rupicolus rupicolus</i> . . .	♂ 9 $\frac{1}{4}$ "	♀ 10"	E. Griqualand.
<i>T. rupicolus rhodesi</i> . . .	♂ 9"	♀ 9 $\frac{1}{2}$ "	Matopo Hills.
		♀ 9 $\frac{1}{4}$ "	Bulawayo.

I would also note that Mr. Austin Roberts, of the Transvaal Museum, who examined these specimens some time ago, was apparently struck by these distinctions, as he has made a note on the labels, "sub-sp. nov.", but as he has not named or described them I have taken the liberty of doing so.

54. *Tinnunculus rupicoloides* (Smith). Large African Kestrel.

This is a bird of the drier parts of South Africa, and I have only met with it in the South-West Protectorate, where it is not uncommon in some parts. It is, for a Kestrel, a somewhat sluggish bird, spending a good deal of its time perched on the top of some thorn-tree, telegraph-pole, or other conspicuous position, from which it looks out for its prey, swooping down on it and then returning to its perch to eat it. I cannot remember to have seen this species hovering in the way the European, and to a less extent the common South African Kestrels do, but its food is much the same, small rodents and insects of various sorts. I have nothing to note with regard to plumage-changes. This is the only true Falcon I know which has a pale-coloured iris; in the adult it is either white or pale yellow.

55. *Tinnunculus cenchris* (Naum.). Lesser Kestrel.

Tinnunculus cenchris pekinensis? (Swinhoe).

I have sometimes found this species very common in the parts of South Africa where I have been, but never met with it in eastern Pondoland. In East Griqualand it was

very common during the summer months, but more so in some years than in others. In the South-West Protectorate I very seldom saw it, but on one occasion, in March 1916, when travelling by train from Tsumeh, in the north, to Windhuk, I saw numbers sitting along the telegraph-wires, and others flying in a northerly direction. At Matatiele in East Griqualand I had good opportunities of observing the habits of this species, as large numbers used to frequent the vicinity of the camp and were to be seen there daily. When the day was still, with little or no breeze blowing, they were to be seen sitting all along the telegraph-wires, watching the ground below, and descending on any prey they might see; but when a breeze was blowing they seemed to prefer to hunt in the air, and would be then seen quartering the surrounding veldt, hovering for a few moments here and there and sometimes swooping down to the ground to pick up some grasshopper or other insect. Their food consisted entirely of insects of various sorts, the smaller ones eaten on the wing, the foot holding the insect being brought forward to the bill, which was bent downwards to receive it. It is very pretty to watch them hawking after the winged termites, seizing them in their feet in flight, and rarely missing them.

With regard to plumage-changes, I would note that Selater says that during the change from juvenile to adult plumage of the young male, "the blue tail is gained by a moult, but the blue head by a change of feather," by the latter apparently meaning that the feathers change colour without moult. I fear I must dissent from this view—first, because I am not amongst those who believe such a thing possible, having, during an observation of some twenty-five years or so, never come across a case of anything approaching it; and, secondly, I have frequently met with young males which had new *blue* feathers appearing among the old rufous and black-streaked feathers of the young plumage. On the other hand, I have met with several immature specimens which might lead one to suppose that the colour of the feathers was changing from rufous to grey, as all the grey

feathers of the crown were suffused with rufous. I, however, believe these specimens to be somewhat abnormal, retaining some of the rufous coloration on the head *after* the moult, as all the feathers were equally fresh and not worn in any way. I secured a somewhat abnormal specimen myself in East Griqualand. This specimen had just completed its moult into adult plumage, but instead of the head being of a uniform blue-grey, it was streaked with black as in *T. rupicolus*, while the dark spots on the under surface were larger and more numerous, and also several of the scapulars had a slate-grey subterminal spot; in fact, the bird in some ways gave me the impression of an aberration in the direction of *T. arturi* (Gurney). I am inclined to think that in this species the spots on the under surface disappear with age; in some specimens they are very small, in others there are only two or three on the flanks, and in the Transvaal Museum there is one very fine specimen, a typical *T. cenchrus* in every other respect, with no sign of spots on the under surface.

I am not sure whether the eastern form of this species, *T. pekinensis* of Swinhoe, is still recognised by ornithologists, but if it is, then many South African specimens appear to be referable to this race, as already noted by the late Mr. J. H. Gurney, sen., in his 'Notes' and also in Appendix "M." to his 'List.' There are two or three more or less typical specimens in the Transvaal Museum, and I think it is quite possible that the eastern race may accompany *Erythropus amurensis* in its migration to this country. For the benefit of those who are not aware how *T. pekinensis* may be distinguished from the typical race, I might mention that Swinhoe stated that it differed in the following particulars, *i. e.*, the mantle and scapulars of a deeper shade of rufous, the under parts without spots, and the greater part of the upper surface of the wing, secondaries, greater, median, and lesser coverts, uniform grey. Of these three points, as pointed out by Gurney, the only one that appears to hold good is the coloration of the wing-coverts.

56. *Erythropus vespertinus* (Linn.). Red-legged Kestrel.

This species appears to be rather rare in South Africa on the whole, and although Andersson recorded it as occurring in Damaraland in vast flocks in his time, I never met with it there, but there is an adult ♀ specimen in the Transvaal Museum from Windhuk, and another specimen, an adult ♂ from the Pretoria district. These are the only South African localities I know of.

57. *Erythropus amurensis* (Radde). Eastern Red-legged Kestrel.

I have only met with this species in East Griqualand, where it was not uncommon in certain years. I did not meet with it in the South-West Protectorate, but saw a specimen of a young male shot by my friend, Major Thompson of the S.A.M.C., at Tsumeh in the north of the Protectorate. I have often noticed these associating with *T. cenchrus*, and much resembling the latter species in general habits, except that I never saw them hovering and their flight is quicker, more dashing, and falcon-like. I once observed a flock which were feeding on some cockchafer-like flying beetles, dashing about and generally behaving much like huge Swifts. At other times I have seen them in the native corn-lands sitting on the heads of the late ripening corn (millet), occasionally flying off and seizing passing insects after the manner of a Flycatcher. One evening fairly late, I saw a number settled in the middle of a road running about and picking up some objects or other, perhaps termites. They appear most active fairly late in the afternoon, and are often still flying about when it is nearly dark. I have nothing to note with regard to plumage-changes.

58. *Hypotriorchis subbuteo* (Linn.). European Hobby.

I have not met with the Hobby in South Africa, where it never appears to be common, while most of those which visit South Africa on migration appear to be young birds, and I have never seen an adult South African killed specimen.

59. *Hypotriorchis cuvieri* (Smith). African Hobby.

This is a rare species in South Africa, and the only specimens in any of the South African Museums appear to be an adult and a young male in the South African Museum at Cape Town.

60. *Chiquera ruficollis* (Swains.). Red-necked Falcon.

This is another somewhat rare species in South Africa. I have personally only met with three specimens, all in the Windhuk district of the South-West Protectorate, and I have nothing to record with regard to its habits. One of the specimens mentioned above, an adult male, which I secured, had in its crop the remains of a small bird.

A few years ago Mr. Austin Roberts described, in the 'Annals of the Transvaal Museum,' a new Falcon under the name of *Falco horsbrughii*, from two specimens shot by Mr. C. B. Horsbrugh in the Pretoria district of the Transvaal. In my opinion this Falcon, of which I have examined the type specimens in the Transvaal Museum, is only *C. ruficollis* in the young plumage, as it agrees very well with Selater's description of that plumage, and also with the description given by Gurney in his 'Notes.' In order to try to elucidate the matter I made careful drawings of the type specimens and sent them home to Mr. Ogilvie-Grant, asking him to compare them with specimens in the British Museum. This he very kindly did, and informed me that they were absolutely identical with young specimens in the Museum. However, Mr. Roberts still upholds his opinion that his species is distinct, basing this on the fact that his specimens were shot in the vicinity of a nest containing young in down. He believes that they were the parents and therefore adult. Secondly, the wing-measurement is somewhat larger. It is possible that *F. horsbrughii* may yet prove to be distinct, but for the present I prefer to treat Mr. Roberts's name as a synonym of *C. ruficollis*.

61. *Falco peregrinus minor* (Bon.). South African Peregrine Falcon.

In my experience this is a rather scarce species everywhere. Shortridge in his notes on the birds of Port St. Johns in eastern Pondoland, in 'The Ibis,' stated that it was common in that district, but although he procured a specimen, I am of the opinion that he must have confused this species with *F. biarmicus*, as I spent some eight years collecting in eastern Pondoland, while I only secured a single specimen and saw one other. I never met with it in East Griqualand, but saw a few in the South-West Protectorate, one of which I secured. It is a most beautifully shaped little Falcon, and I should think if trained would prove a fine game-hawk. Nearly all I have seen have been in pursuit of some bird or other. A fine adult male which I shot in Pondoland had just stooped and picked up a Quail, which I had missed; another I saw make a most determined stoop at a Hadadah Ibis, which only just escaped, shrieking with fear and dropping like a stone into a reed-bed. On the border of the Etosha Pass in Ovamboland I saw one pursuing a flock of Ruffs. Another I saw make a dash at a flock of Doves, which escaped into some trees. Again, near Windhuk, a friend of mine made a very lucky right and left, killing with the right barrel a Rock Pigeon, and with the left a beautiful male of this species, which was in pursuit of the pigeon.

I have not been able to examine a large enough number of specimens to state anything definitely, but it has seemed to me from the examination of a fair number of both sexes that there is a distinct difference in this respect: this is principally noticeable in the colouring of the under parts, which, in females, always resembled the plate of this species in Sharpe's Catalogue. That is, the under parts were always rufous and buffy-white, barred with black or dark brown, without any trace of grey. All males have had the under parts, especially the flanks and tibial plumes, more or less grey, barred with black. With one exception, all the males I have seen have had the throat and breast creamy-white, the latter with small spots of black. The one exception

is the male already mentioned as shot at Windhuk. This specimen had the breast of a dark salmon-buff, without a sign of spots, and only a few spots on the abdomen. Gurney states in his 'Notes' that he has never seen a specimen with any rufous tips to the feathers of the hind neck, such as are usually present in *F. barbarus*. I have, however, seen two adult females which showed distinct rufous tips to these feathers.

As regards the occurrence of *Falco peregrinus* in South Africa, Gurney at various times recorded in 'The Ibis' Falcons from South Africa as belonging to this species, but I have been unable to find out whether these were correctly identified. Gunning and Haagner in their Check-list include *F. peregrinus* on the strength of an adult in the Transvaal Museum from Grahamstown. I have examined this specimen, which is undoubtedly an adult male of *F. minor*. Later Mr. Austin Roberts, in the 'Annals of the Transvaal Museum,' referred a young mounted specimen in the museum to *F. peregrinus*. This I also believe to be referable to *F. minor*. So that at present I do not consider that *F. peregrinus* can be included in the South African avifauna.

62. *Falco biarmicus* (Temm.). South African Lanner Falcon.

This is a common Falcon in South Africa, and I have met with it practically everywhere, but mostly in the more open parts where there are suitable cliffs for breeding and not too much bush about. It is a game-killing Falcon, taking its prey, which consists principally of birds of various sorts, such as pigeons, quails, partridges, etc., in the true falcon manner, either by a swift stoop from a great height, or else in a stern chase. It is a bird of very powerful and swift flight, as is shown by the fact that I saw one chase and finally catch a full-grown Rock Pigeon, which is one of our strongest and swiftest fliers, and a bird which would tax even the powers of the European Peregrine. During the summer months, when the Quail are here, the Lanners seem to be more in evidence than ever, and when out Quail shooting one or more are sure to turn up, and 'wait on'

above in the hopes of picking up a Quail or two that has been flushed and missed. This habit is taken advantage of by the native boys, who, accompanied by their dogs, beat through the corn-lands, but before doing so, give a peculiar call to attract the Falcons, which are sure to be about. These then 'wait on' above while the boys and the dogs hunt through the stubble. When a Quail rises the boys throw their sticks; if they miss, one of the Falcons stoops, and frequently misses the Quail, which drops like a stone into the nearest cover, in which case nothing will induce it to rise again, and is either caught by the dogs or picked up by the boys.

My friend, Mr. B. R. Langford, late of the Irrigation Department at Pretoria, had some of these Falcons in training before the war. One of these, a Tiercel named "Robin Hood," which he had for about three years, turned out very well, and gave some good flights; but it would appear from what Mr. Langford told me, that these Falcons cannot compare with the European Peregrine as a game-hawk.

I have nothing much to record with regard to plumage, except to draw attention to an abnormally coloured young bird, described and figured by Mr. Langford in the 'Journal of the South African Ornithologists' Union.' This appears to have been a somewhat albinistic form, the under parts being normally coloured, but the upper parts more or less mottled and barred with whitish. Adults of this species often have a few greyish bars and spots on the flanks and tibial feathers.

63. *Pandion haliaëtus* (Linn.). Osprey.

I have only met with Ospreys at the mouths of some of the larger rivers in eastern Pondoland, where they are far from common, not more than a pair of birds being found on each river. Their habits in South Africa seem exactly the same as in other parts of the world, and I have already alluded to the way in which the Sea-Eagles rob them of their prey. I have never met with a nest, and so far as I am aware, there is no record of the bird having bred in South Africa. I have nothing to record with regard to plumage-changes.

[Concluded.]